

Title (en)  
Light emitting semiconductor device and method for manufacturing the same

Title (de)  
Lichtemittierendes Halbleiterbauelement und Verfahren zu seiner Herstellung

Title (fr)  
Dispositif émetteur de lumière à semi-conducteur et son procédé de fabrication

Publication  
**EP 1804302 A3 20110629 (EN)**

Application  
**EP 06026701 A 20061222**

Priority  
JP 2005375901 A 20051227

Abstract (en)  
[origin: EP1804302A2] There is provided a semiconductor device mounted with a light emitting element, which can be downsized easily, improve light emitting efficiency and be formed easily, and a method for manufacturing the semiconductor device effectively. The semiconductor device includes a substrate, a light emitting element mounted on the substrate by flip chip bonding, a sealing structure sealing the light emitting element and a phosphor film which is formed on an internal surface of the sealing structure. The sealing structure includes a blocking portion which is formed integrally with the substrate so as to surround the light emitting element on the substrate and functions as a reflector that reflects a light emitted from the light emitting element and a cover portion which is arranged on the top of the blocking portion and is bonded to the blocking portion.

IPC 8 full level  
**H01L 33/00** (2010.01); **H01L 33/50** (2010.01); **H01L 33/60** (2010.01); **H01L 33/62** (2010.01)

CPC (source: EP US)  
**H01L 33/483** (2013.01 - EP US); **H01L 33/507** (2013.01 - EP US); **H01L 33/56** (2013.01 - EP US); **H01L 33/60** (2013.01 - EP US); **H01L 2224/45144** (2013.01 - EP US); **H01L 2224/48091** (2013.01 - EP US); **H01L 2924/01019** (2013.01 - EP US); **H01L 2924/09701** (2013.01 - EP US); **H01L 2924/10253** (2013.01 - EP US)

Citation (search report)

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- [IY] US 2005139846 A1 20050630 - PARK JUNG K [KR], et al
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Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 1804302 A2 20070704; EP 1804302 A3 20110629; EP 1804302 B1 20160309**; JP 2007180204 A 20070712; JP 5073946 B2 20121114; KR 20070069056 A 20070702; TW 200737551 A 20071001; US 2007145400 A1 20070628; US 7655956 B2 20100202

DOCDB simple family (application)  
**EP 06026701 A 20061222**; JP 2005375901 A 20051227; KR 20060133820 A 20061226; TW 95149150 A 20061227; US 64493306 A 20061226